ABSTRACT

An insulating ceramic composition forming insulating ceramic layers (3) stacked in a multilayer ceramic substrate (2) used in a monolithic ceramic electronic component, such as a multilayer ceramic module (1). The insulating ceramic composition contains a first ceramic powder mainly containing forsterite, a second ceramic powder mainly containing at least one compound selected from the group consisting of $CaTiO_3$, $SrTiO_3$, and TiO_2, and a borosilicate glass powder. The borosilicate glass powder contains 3 to 15 percent by weight of lithium in terms of Li_2O, 30 to 50 percent by weight of magnesium in terms of MgO, 15 to 30 percent by weight of boron in terms of B_2O_3, 10 to 35 percent by weight of silicon in terms of SiO_2, 6 to 20 percent by weight of zinc in terms of ZnO, and 0 to 15 percent by weight of aluminum in terms of Al_2O_3. The insulating ceramic composition can be fired at a temperature of 1000°C or less, and the resulting sintered compact has a low relative dielectric constant, a resonance frequency with a low temperature coefficient, and a high Q value.